



11-09-05

IFW

Docket No. 7676/SYNX/JW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Inventor(s): Michael R. Rice, Martin R. Elliott, Robert B. Lowrance, Jeffrey C. Hudgens and Eric A. Enghardt
Title: SUBSTRATE CARRIER HANDLER THAT UNLOADS SUBSTRATE CARRIERS DIRECTLY FROM A MOVING CONVEYOR
Serial No.: 10/650,480
Filed: August 28, 2003
Examiner: Marc, McDieunel
Group Art Unit: 3661

Transmitted herewith is:

- ☒ PTO Form 1449;
☒ Information Disclosure Statement with seventy-two cited references; and
☒ Return Postcard.

FEE CALCULATION					
Fee Items	Claims Filed	Included With Basic Fee	Extra Claims	Fee Rate	Total
Total Claims	N/A	- 20 =	-0-	X \$50.00	\$0.00
Independent Claims	N/A	- 3 =	-0-	X \$200.00	\$0.00
Basic Filing Fee				\$790.00	\$0.00
TOTAL FEES					PAID

- ☒ The Commissioner is hereby authorized to charge \$180.00 to Deposit Account No. 04-1696.
☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-1696. A duplicate copy of this transmittal is enclosed.

☒ Please address all future correspondence to: Customer # 41161
Dugan & Dugan, PC
55 South Broadway
Tarrytown, NY 10591

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail Receipt No. EV605115633US

Date of Deposit: November 8, 2005

Signature: [Signature]

Respectfully submitted,

[Signature]
Brian M. Dugan

Registration No. 41,720
(914) 332-9081



Express Mail Label No. EV605115633US

PATENTS
7676/SYNX/JW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Michael R. Rice, et al.
Serial No. : 10/650,480
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CONVEYOR
Group Art Unit : 3661
Customer No. : 41161
Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97,
applicants wish to call the attention of the Examiner to the
following references:

U.S. Patent No. 4,006,813, Rene Fluck

U.S. Patent No. 4,166,527, Earl F. Beezer

U.S. Patent No. 4,222,479, Dugan, et al.

U.S. Patent No. 4,294,344, Johannes D. van Maanen

U.S. Patent No. 4,450,950, James C. Foote, Jr.

11/10/2005 CNGUYEN 00000029 041696 10650480

01 FC:1806 180.00 DA

U.S. Patent No. 4,538,720, Jean-Louis Limousin
U.S. Patent No. 4,552,261, Raudat, et al.
U.S. Patent No. 4,584,944, Clarence A. Dehne
U.S. Patent No. 4,653,630, Anna Bravin
U.S. Patent No. 4,679,685, Kenji Inoko
U.S. Patent No. 4,702,365, Chong-Il Pak
U.S. Patent No. 4,708,727, Cardenas-Franco, et al.
U.S. Patent No. 4,720,006, Harald Lenherr
U.S. Patent No. 4,750,605, Brems, et al.
U.S. Patent No. 4,852,717, Ross, et al.
U.S. Patent No. 4,901,843, Jeffrey A. Lashyro
U.S. Patent No. 4,921,092, Crawford, et al.
U.S. Patent No. 5,052,544, David L. Anderson
U.S. Patent No. 5,092,450, Schommartz, et al.
U.S. Patent No. 5,123,518, Ernest H. Pfaff
U.S. Patent No. 5,341,915, Cordia, et al.
U.S. Patent No. 5,560,471, Prochut, et al.
U.S. Patent No. 5,653,327, Buday, Jr., et al.
U.S. Patent No. 5,664,254, Ohkura, et al.
U.S. Patent No. 5,782,338, Schuster, et al.
U.S. Patent No. 5,797,249, Thomas Patterson Hartness
U.S. Patent No. 5,829,574, Mario DelSanto
U.S. Patent No. 5,865,292, Aguilar, et al.
U.S. Patent No. 5,887,701, Mario Spatafora

U.S. Patent No. 6,209,710, Mueller, et al.
U.S. Patent No. 6,223,887, Naoyuki Andou
U.S. Patent No. 6,227,346, Lecomte, et al.
U.S. Patent No. 6,227,348, Frei, et al.
U.S. Patent No. 6,234,300, De Vos, et al.
U.S. Patent No. 5,110,249, Arthur E. Norman
U.S. Patent No. 6,036,426, Gary Hillman
U.S. Patent No. 6,183,186, Peltola, et al.
U.S. Patent No. 4,401,522, Buschow, et al.
U.S. Patent No. 4,534,843, Hirbour, et al.
U.S. Patent No. 4,540,088, John C. Bergh
U.S. Patent No. 4,650,264, Dean L. Dahnert
U.S. Patent No. 4,775,046, Gramarossa, et al.
U.S. Patent No. 6,235,634, Law, et al.
U.S. Patent No. 2002/090282, Robert Z. Bachrach
U.S. Patent No. 2003/010449, Gramarossa, et al.
U.S. Patent No. 1,639,758, Jervis B. Webb
U.S. Patent No. 1,906,036, William E. Wunderlich
U.S. Patent No. 2,153,071, Leonard J. Bishop
U.S. Patent No. 2,949,996, Roger Tonelli
U.S. Patent No. 3,058,604, Harper, et al.
U.S. Patent No. 3,131,801, Augusto Marchetti
U.S. Patent No. 3,184,032, John Petter Ingemar Jonsson
U.S. Patent No. 3,587,817, Bornstein, et al.

U.S. Patent No. 3,610,448, Ulrich Bornfleth

U.S. Patent No. 4,730,733, Kawamura, et al.

U.S. Patent No. 4,936,438, Glenn Waineo

Foreign Art Reference No. JP 02098157 A (Japan)

Foreign Art Reference No. JP 00062949 A (Japan)

Foreign Art Reference No. JP 00335799 A (Japan)

Foreign Art Reference No. WO 97/09256 A1 (PCT)

Foreign Art Reference No. WO 00/69724 A1 (PCT)

Foreign Art Reference No. EP 0717717 B1 (EPO)

Foreign Art Reference No. EP 00735927 B1 (EPO)

Foreign Art Reference No. EP 00912426 B1 (EPO)

Foreign Art Reference No. EP 0277536 A1 (EPO)

Virvalo, T.K., "Cylinder Speed Synchronization", Dec. 1978, Hydraulics and Pneumatics, Vol. 31, No. 12, pages 55-57.

Cheng, et al., "Adaptive Synchronization Control of a Robotic Manipulator Operating in an Intelligent Workcell", April 1990, IEEE Transactions on Industrial Electronics, Vol. 37, No. 2, pages 119-126.

Shih-Hung Li, et al. "An Ultrahigh Speed Assembly Robot System. Part I. Design", 1994, Proceedings 1994 Japan-U.S.A. Symposium on Flexible Automation - A Pacific Rim Conference, Vol. 2, pages 465-72.

Roberts, et al., "Feed Chute Geometry for Minimum Belt Wear", Sept. 1998, 6th International Conference on Bulk Materials Storage, Handling and Transportation, pages 153-159.

Saigo, et al., "Drive Control Systems for Processing Lines", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 45-49, Japanese language (Abstract only).

Saigo, K., "Variable-speed Drive Systems for Industrial Plants", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 10-14, Japanese language (Abstract only).

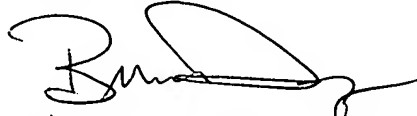
Park, et al., "Task Sequence Optimization for a Dual-Robot Assembly System using Evolutionary Algorithms", 2001, Proceedings of the Institution of Mechanical Engineers, Part B (Journal of Engineering Manufacture), Vol. 215, No. B6, pages 835-46.

Please charge deposit account No. 04-1696 in the amount of \$180.00 for consideration of this information disclosure statement under 37 C.F.R. § 1.97(c)(2).

These references are also listed on the accompanying Information Disclosure Statement (Form PTO-1449).

Consideration of the foregoing in relation to this
patent application is respectfully requested.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Brian M. Dugan', with a stylized flourish at the end.

Brian M. Dugan, Esq.
Registration No. 41,720
Dugan & Dugan, PC
Attorneys for Applicants
(914) 332-9081

Dated: November 8, 2005
Tarrytown, New York

U.S. Department of Commerce, Patent and Trademark Office <div style="display: flex; align-items: center;"> <div> LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary) </div> </div>				Docket No.: 7676/SYNX/JW		Serial No.: 10/650,480	
				Applicants: Michael R. Rice, et al			
				Filing Date: August 28, 2003		Group: 3652	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	US-1	4,006,813	Rene Fluck				
	US-2	4,166,527	Earl F. Beezer				
	US-3	4,222,479	Dugan, et al.				
	US-4	4,294,344	Johannes D. van Maanen				
	US-5	4,450,950	James C. Foote, Jr.				
	US-6	4,538,720	Jean-Louis Limousin				
	US-7	4,552,261	Raudat, et al.				
	US-8	4,584,944	Clarence A. Dehne				
	US-9	4,653,630	Anna Bravin				
	US-10	4,679,685	Kenji Inoko				
	US-11	4,702,365	Chong-Il Pak				

Foreign Patent Documents							Translation	
	Document Number	Date	Country	Class	Subclass	Yes	No	
	F-1	JP 02098157 A	04/10/90	Japan		Abstract		
	F-2	JP 00062949 A	02/29/00	Japan		Abstract		
	F-3	JP 00335799 A	12/05/00	Japan		Abstract		
	F-4	WO 97/09256 A1	03/13/97	PCT		Abstract		
	F-5	WO 00/69724 A1	11/23/00	PCT		X		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
	OT-1	Virvalo, T.K., "Cylinder Speed Synchronization", Dec. 1978, Hydraulics and Pneumatics, Vol. 31, No. 12, pages 55-57.
	OT-2	Cheng, et al., "Adaptive Synchronization Control of a Robotic Manipulator Operating in an Intelligent Workcell", April 1990, IEEE Transactions on Industrial Electronics, Vol. 37, No. 2, pages 119-126.
	OT-3	Shih-Hung Li, et al. "An Ultrahigh Speed Assembly Robot System. Part I. Design", 1994, Proceedings 1994 Japan-U.S.A. Symposium on Flexible Automation - A Pacific Rim Conference, Vol. 2, pages 465-72.

Examiner	Date Considered
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	US-12	4,708,727	11/24/87	Cardenas-Franco, et al.			
	US-13	4,720,006	01/19/88	Harald Lenherr			
	US-14	4,750,605	06/14/88	Brems, et al.			
	US-15	4,852,717	08/01/89	Ross, et al.			
	US-16	4,901,843	02/20/90	Jeffrey A. Lashyro			
	US-17	4,921,092	05/01/90	Crawford, et al.			
	US-18	5,052,544	10/01/91	David L. Anderson			
	US-19	5,092,450	03/03/92	Schommartz, et al.			
	US-20	5,123,518	06/23/92	Ernest H. Pfaff			
	US-21	5,341,915	08/30/94	Cordia, et al.			
	US-22	5,560,471	10/01/96	Prochut, et al.			

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		Document Number	Date	Country	Class	Subclass	Yes	No
	F-6	EP 0717717 B1	07/07/99	EPO			X	
	F-7	EP 00735927 B1	11/03/99	EPO			Abstract	
	F-8	EP 00912426 B1	08/09/00	EPO			Abstract	
	F-9	EP 0277536 A1	08/10/88	EPO			Abstract	
	F-10							

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OT-4	Roberts, et al., "Feed Chute Geometry for Minimum Belt Wear", Sept. 1998, 6th International Conference on Bulk Materials Storage, Handling and Transportation, pages 153-159.	
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	US-26	5,797,249	Thomas Patterson Hartness				
	US-27	5,829,574	Mario DelSanto				
	US-28	5,865,292	Aguilar, et al.				
	US-29	5,887,701	Mario Spatafora				
	US-30	6,209,710	Mueller, et al.				
	US-31	6,223,887	Naoyuki Andou				
	US-32	6,227,346	Lecomte, et al.				
	US-33	6,227,348	Frei, et al.				

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	F-12							
	F-13							
	F-14							
	F-15							

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OT-7	Park, et al., "Task Sequence Optimization for a Dual-Robot Assembly System using Evolutionary Algorithms", 2001, Proceedings of the Institution of Mechanical Engineers, Part B (Journal of Engineering Manufacture), Vol. 215, No. B6, pages 835-46.
OT-8	
OT-9	

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	US-34	6,234,300	De Vos, et al.				
	US-35	5,110,249	Arthur E. Norman				
	US-36	6,036,426	Gary Hillman				
	US-37	6,183,186	Peltola, et al.				
	US-38	4,401,522	Buschow, et al.				
	US-39	4,534,843	Hirbour, et al.				
	US-40	4,540,088	John C. Bergh				
	US-41	4,650,264	Dean L. Dahnert				
	US-42	4,775,046	Gramarossa, et al.				
	US-43	6,235,634	Law, et al.				
	US-44	2002/090282	Robert Z. Bachrach				

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	F-16							
	F-17							
	F-18							
	F-19							
	F-20							

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	OT-12

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	US-46	1,639,758	08/08/27	Jervis B. Webb			
	US-47	1,906,036	04/08/33	William E. Wunderlich			
	US-48	2,153,071	04/08/39	Leonard J. Bishop			
	US-49	2,949,996	08/08/60	Roger Tonelli			
	US-50	3,058,604	10/08/62	Harper, et al.			
	US-51	3,131,801	05/08/64	Augusto Marchetti			
	US-52	3,184,032	05/08/65	John Petter Ingemar Jonsson			
	US-53	3,587,817	06/08/71	Bornstein, et al.			
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	F-24							
	F-25							

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	US-56	4,936,438	Glenn Waineo				
	US-57						
	US-58						
	US-59						
	US-60						
	US-61						
	US-62						
	US-63						
	US-64						
	US-65						
	US-66						

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	Document Number	Date	Country	Class	Subclass	Yes	No	
	F-26							
	F-27							
	F-28							
	F-29							
	F-30							

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	OT-16
	OT-17
	OT-18

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